

Water Management Assistance Program



9.1 INTRODUCTION

The Arizona Department of Water Resources' (Department) Water Management Assistance Program is intended to provide financial and technical resources to assist water users in meeting their conservation requirements, facilitate replenishment of the water supply, and obtain information on hydrologic conditions and water availability in the Active Management Area (AMA). This program is funded primarily through a portion of the water withdrawal fees paid annually by persons withdrawing water from wells in conjunction with filing their Annual Water Withdrawal and Use Report. The Water Management Assistance Program consists of the following: the Conservation Assistance Program, the Augmentation Assistance Program, and the Monitoring and Assessment Program. Conservation and augmentation assistance and information on hydrologic conditions acquired through monitoring and assessing water availability are essential tools in achieving the Department's water management goals. These goals include the efficient use of all water supplies, maintaining safe-yield conditions, and preventing long-term declines in local water table levels.

Conservation assistance is provided primarily in the form of financial assistance. However, it also includes planning and technical support and information and education services. Conservation assistance will continue to serve as a balance to enforcement actions during the third management period.

Augmentation assistance involves providing funds for projects that supplement the water supply of the AMA or that provide information to resolve technical feasibility issues or to optimize operation of recharge projects. Assistance includes studies initiated or conducted by the Department, cost sharing grants for augmentation projects, and studies initiated or conducted by others. Assistance may also include planning and technical support for AMA-wide and local area water management strategies.

Monitoring and assessment activities include providing staff assistance and funds for water supply and monitoring studies.

This chapter includes the following sections:

- Statutory Provisions
- Department's Role in the Water Management Assistance Program
- Second Management Plan Program Summary and Assessment
- Third Management Plan Program Goals and Objectives
- Allocation of Program Funds
- Future Program Direction

9.2 STATUTORY PROVISIONS

9.2.1 Program Authorization and Funding

The Groundwater Code (Code) requires that the Third Management Plan include a program for "additional augmentation of the water supply of the active management area, if feasible, including incentives for artificial groundwater recharge" and "a program for conservation assistance to water users within the active management area." A.R.S. § 45-566(A)(6) and (8). Funding for these programs comes primarily from groundwater withdrawal fees levied and collected pursuant to A.R.S. § 45-611(C). Other sources of funding include one-half of the annual surcharge collected by the director from persons holding a permit

for interim groundwater use in bodies of water within the AMA and application fees for underground storage facility permits, groundwater savings facilities permits, water storage permits, and recovery well permits. A.R.S. §§ 45-133(E) and 45-871.01(A).

All fees received by the Department for the Water Management Assistance Program must be transmitted to the state treasurer. A.R.S. § 45-615. The state treasurer is required to hold the fees in a separate fund and to maintain within the fund separate accounts for each AMA. A.R.S. § 45-615(1). Monies held in the fund for an AMA may be used only to finance the augmentation and conservation assistance programs that are part of the management plan for the AMA and to fund any projects that are authorized by the director for monitoring and assessing water availability within the AMA. A.R.S. § 45-613(A).

The director is authorized to provide monies from the fund through grants rather than through the state's Procurement Code for augmentation or conservation assistance projects that will benefit the AMA in which the monies were collected. A.R.S. § 45-617.

9.2.2 Groundwater Withdrawal Fees

The groundwater withdrawal fee is levied and collected from each person who withdraws groundwater from a non-exempt well within the AMA, except persons who withdraw groundwater for use on a farm with ten or fewer irrigation acres. In the Santa Cruz AMA, the director collects an annual withdrawal fee from each person withdrawing water, other than stored water, from a well. The annual withdrawal fee is considered a groundwater withdrawal fee in the Santa Cruz AMA. A.R.S. § 45-611(A). No later than October 1 of each year, the director is required to set the groundwater withdrawal fee for an AMA for the following year. A.R.S. § 45-614(A). Prior to setting the fee, the Groundwater Users Advisory Council (GUAC) for the AMA recommends to the director how the fee should be set within the statutory limit.

Within 30 days after setting the fee, the director is required to give written notice of the fee to all counties, cities, towns, private water companies, political subdivisions, and holders of groundwater withdrawal permits in the AMA. A.R.S. § 45-614(C). The fee is required to be paid to the Department at the time the person withdrawing the water files an annual report pursuant to A.R.S. § 45-632. A.R.S. § 45-614(E).

Groundwater withdrawal fees for administration and enforcement of the Code have been collected since 1990. This first year assessment was to initiate the augmentation assistance program adopted as part of the Second Management Plan. In 1991, the Second Management Plan was modified to include a conservation assistance program which also became eligible for funding.

Table 9-1 shows the total water withdrawn, annual groundwater withdrawal fees, and total fees collected for the program from 1990 through 1997 in the Santa Cruz AMA.

9.3 DEPARTMENT'S ROLE IN THE WATER MANAGEMENT ASSISTANCE PROGRAM

The Department's role in the Water Management Assistance Program is to:

- review and provide input on project proposals
- develop project proposals
- implement Department projects
- prioritize projects that best meet the AMA management objectives
- provide technical and field assistance
- provide information and educational services
- promote the exchange of information among entities implementing the projects
- administer intergovernmental agreements (IGAs), contracts, and grants as described in this chapter

TABLE 9-1
GROUNDWATER WITHDRAWAL FEES¹ COLLECTED FOR
WATER MANAGEMENT ASSISTANCE PROGRAM
SANTA CRUZ ACTIVE MANAGEMENT AREA

Year	Water Withdrawn from Wells² (Acre-Feet)	Withdrawal Fee (per Acre-Foot)	Monies Collected
1990	18,999	\$1.00	\$18,002
1991	18,892	1.75	31,325
1992	15,589	1.85	26,986
1993	15,593	2.00	31,077
1994	23,533	2.00	47,863
1995	20,921	2.00	39,752
1996	22,499	2.00	45,136
1997	20,773	2.00	40,346
Average	19,600	1.83	35,061

¹ Withdrawal fees and fees collected reflect only that portion of the groundwater withdrawal fee established to support the Water Management Assistance Program. Total withdrawal fees through 1997 have been greater than Table 1 fees, since the first one dollar per acre-foot of the annual withdrawal fee was established for general Department administrative purposes.

² The figures in the groundwater pumped column reflect the most recent information available in the AMA. This information may vary from the figures used at the time the groundwater withdrawal fees were actually collected.

A complete description of how projects are prioritized and selected and how funds are allocated is found in section 9.6.

9.3.1 Fund Management and Administration

Fund management and administration of grants and contracts are coordinated between the Department's Administrative Services Division and the AMA. The centralized functions include management of the separate funds for each AMA and contract administration. The AMA staff initiate and support the grant application and review process and serve as the technical administrators for most grants and contracts.

9.3.2 Contract Development, Monitoring, and Support

Each applicant proposal accepted for funding must enter into a contractual agreement with the Department. Contracts are prepared by Department staff consistent with the applicant's proposal and scope development. The contract describes what tasks are to be accomplished and sets deadlines for task completion and fund disbursements. Department staff track progress and review deliverables for compliance with contract requirements. The Department authorizes and issues payments, modifies contracts as needed, and provides other legal and administrative support.

9.3.3 Information and Education Service

The Department's Web site serves as an information clearinghouse and the primary public venue for dissemination of current information on the Water Management Assistance Program. Information gained

through Department sponsored programs, which are deemed to be regionally, statewide, and/or nationally transferable, will be placed on the Department's Web site and updated regularly. An additional focus will be linking the Department's Web site to other pertinent Web sites. This will assist users in finding water conservation, water supply, and augmentation information from other sources. In addition to a computer-based information clearinghouse, a centralized clearinghouse would include a library of conservation and augmentation literature as well as detailed information on grants and contracts funded and would provide centralized water conservation outreach activities.

The AMA office is responsible for developing water conservation information materials, educational curricula and displays, and programs specific to water users within the AMA. These materials may be developed independently with conservation assistance funding (e.g., grants or contractual agreements with consultants) in cooperation with other AMAs or through partnerships with other government agencies, community groups, or utilities.

The AMA office is also responsible for maintaining inventories of information and educational materials for distribution to water users within the AMA. Conservation-related presentations to schools, civic and other groups, and participation at local events are generally the responsibility of the AMA staff.

9.3.4 Assistance Activities

Assistance activities may include providing general or specific advice, performing research, assisting in the development of conservation and water management programs, and providing field or other technical support. AMA staff also provide support for augmentation and recharge activities including technical assistance and facilitation of regional planning efforts.

9.4 SECOND MANAGEMENT PLAN PROGRAM SUMMARY AND ASSESSMENT

9.4.1 Second Management Plan Conservation Assistance Program

The Second Management Plan identified four conservation program categories to be the focus of the grants program. They were:

- Information and Education
- Agricultural Users Program
- Municipal Users Program
- Industrial Users Program

The Second Management Plan required that at least one conservation project be funded in each category during the second management period. Through 1998, the Santa Cruz AMA has funded seven projects and distributed \$85,438 in funds. The number of grants in each of the funding categories and the funding amounts are listed in Table 9-2. A more detailed classification of grants funded is described below.

Education - Four grants totaling \$17,138 were awarded to develop water resources and conservation programs for children in grades one through eight using publications and laboratory worksheets available in English and Spanish.

Municipal - One grant of \$15,000 was awarded for the purpose of creating a residential, non-residential, and municipal water conservation program for the City of Nogales.

Monitoring - One grant of \$39,500 was awarded to construct a continuous-recording streamflow gage at Tubac.

TABLE 9-2
CONSERVATION ASSISTANCE GRANTS AWARDED
1990-1998
SANTA CRUZ ACTIVE MANAGEMENT AREA

Category	Number of Grants	Funding Totals
Education	4	\$17,138
Municipal	1	\$15,000
Monitoring	1	\$39,500
Re-use	1	\$13,800
Total	7	\$85,438

Re-use - One grant of \$13,800 was awarded to a wetlands-based reuse project at Tubac Ranch.

9.4.2 Second Management Plan Augmentation Assistance Program

Through the 1998 grant cycle, no augmentation projects have been funded in the Santa Cruz AMA.

9.4.3 Second Management Plan Program for Monitoring and Assessment

Statutory authorization making these types of projects fundable under this program was given in 1996. Projects in this category do not have to follow the previously described grant funding process. The Department may utilize funds from withdrawal fees, if, in the opinion of the Department, such a project is critical to the needs of the agency.

9.4.4 Second Management Plan Program Assessment

The Water Management Assistance Program has been in operation for seven years. As previously described, projects in the education program category have been funded under this program. The mark of a good program is whether it is achieving the objectives established for it. This section will generally assess the accomplishments of the program. This assessment will be used to reaffirm or reshape the program, as necessary, for the third management period. This general program assessment was conducted for the following reasons:

- The creation of the Santa Cruz AMA in 1994 with its unique dual goal of maintaining safe-yield conditions and long-term local water table levels may require a re-adjustment in the allocation of funds to better assist in the achievement of the dual goal.
- Much time and money have been invested in this program. With that investment, it is good policy to determine what has and has not been successful in order to provide direction for future program efforts.

9.4.4.1 Attainment of Program Goal/Objectives

The goal of the Water Management Assistance Program has been to assist water users and others in achieving the management plan conservation requirements and in developing augmentation and recharge projects in order to maximize the use of renewable resources. This may be achieved by identifying and carrying out high priority projects, providing funds for the development of such programs, acting as a

central source of information, and increasing public awareness of the importance of water conservation and renewable resource development.

9.4.4.1.1 Priority Projects

The AMA currently establishes annual funding priorities, based on consultation with the GUAC and other members of the water using community. Applications for funding under these priority categories receive stronger consideration in the review and selection process. During the first four years of this program, funding priorities were not set. Any application that met the Second Management Plan review criteria had an equal opportunity for funding. Funding priorities were established for the Santa Cruz AMA in 1996. Up to \$3,000 of discretionary funding was made available for conservation assistance and education purposes. Funds were also prioritized for the purchase of continuous water level recorders and for a geophysical survey of the northern portion of the AMA. The Santa Cruz AMA has continued to earmark up to \$3,000 per year for conservation assistance and education; however, this amount has not been spent in each year from 1996 to the present. In 1999, some additional priorities were proposed at a GUAC meeting. These included studies to determine possible locations and types of augmentation or recharge projects.

9.4.4.1.2. Providing Funds

The Department has made all funds collected for this program available for award. A small percentage of total funds collected is used by the Department to provide legal and administrative support to the program. Although all funds collected have been made available, all funding has not been awarded. In most years, the amount of funding available has exceeded the amount requested by applicants receiving GUAC recommendation. However, major projects with many water management benefits require several years worth of funding. For this reason, grants may not be offered in some years in order to collect sufficient funds to address a major water management issue in the future.

9.5 THIRD MANAGEMENT PLAN PROGRAM GOALS AND OBJECTIVES

9.5.1 Third Management Plan Conservation Assistance Program

The goal of the Conservation Assistance Program is to assist water users and other eligible persons within the Santa Cruz AMA in achieving the conservation requirements of the management plan. The Department will meet this goal by working towards the following program objectives:

- Identify high priority funding areas in consultation with the GUAC and the water using community and carry out priority programs.
- Provide funds for the development of conservation assistance programs for agricultural, municipal, and industrial water users and for information and education on water conservation.
- Act as a central source for information on water conservation.
- Increase public awareness of the importance of water conservation.

9.5.2 Third Management Plan Augmentation Assistance Program

The goal of the Augmentation Assistance Program is to assist water users and other eligible persons within the Santa Cruz AMA in developing augmentation/replenishment projects in order to help maintain safe-yield conditions and prevent long-term declines in local water table levels. The Department will meet this goal by working towards the following program objectives:

- Identify high priority funding areas in consultation with the GUAC and the water using community and carry out priority programs.

- Provide funds for the planning, design, and construction of replenishment projects.
- Act as a central source for information on augmentation/replenishment project options.
- Increase public awareness of the importance of augmenting/replenishing AMA water supplies.

9.5.3 Third Management Plan Program for Monitoring and Assessing

The goal of this program is to assist in identifying, establishing, and implementing programs that monitor and assess the hydrologic conditions and the potential impacts of continued water withdrawals and water level declines in the Santa Cruz AMA. The Department will meet this goal by working towards the following program objectives:

- Identify high priority funding areas in consultation with the GUAC and the water using community and carry out priority programs.
- Provide funds for the purchase and installation of monitoring equipment, including well meters, continuous well water level recorders, and stream gaging stations.
- Act as a central source for information on monitored conditions.

9.6 DEPARTMENT'S ROLE IN WATER MANAGEMENT ASSISTANCE PROGRAM

The Department's role in the Water Management Assistance Program is to direct the program by identifying areas in need of technical or financial assistance, establishing assistance priorities, soliciting and reviewing projects for funding, developing contractual arrangements, providing administrative and logistical support, reviewing deliverables, monitoring progress, and providing access to results. The Department may also propose projects, which may be performed by outside entities or by Department personnel. The Department may also use funding to obtain equipment for water management monitoring.

9.6.1 Annual Assistance Priorities

In an effort to apply available funding and technical assistance to the most important projects, the AMA identifies annual program priorities. With assistance from members of the water using community and the GUAC, high priority categories are identified. Any projects identified for funding in these categories receive preference during the application review and selection process.

9.6.2 Application and Review Process

An extensive mailing list is used for notification that the annual grant application process has begun. The notice identifies funding categories, priorities, application review criteria, application submittal and review schedules, and funding levels. Once applications are received, AMA staff conduct their review. AMA staff also provide logistical and technical support to the GUAC during their concurrent review. Generally, an initial screening of applications is conducted by the GUAC. Applications most consistent with the established funding priorities are retained for further consideration. Those applicants making the "first cut" are invited to make a presentation to the GUAC. Subsequent to the presentations and application reviews, the GUAC selects which applicants should receive funding and forwards their recommendations to the Department director. The director then makes the final determination as to which applications will be offered a contract.

9.6.2.1 Conservation Assistance Proposal Selection

The selection criteria to be used in the Santa Cruz AMA by the GUAC and the director to evaluate conservation assistance proposals are listed below. Certain criteria may be given greater weight, and any weighted system will be applied consistently. There are three mandatory evaluation criteria and additional criteria that may be used in project selection.

Mandatory Evaluating Selection

1. Compliance of the project with applicable laws and administrative regulations. In the case of regulated water users, the extent to which this project helps to reach Third Management Plan conservation requirements.
2. Cost effectiveness of the project. Ability to combine the project with proposed or ongoing projects resulting in cost and human resource savings. Ability of the project proponent to obtain matching funds for the project. Extent to which the applicant is contributing to the cost of the project (e.g., in-kind or cash). Predicted water demand reduction. Extent and duration of reduction relative to project costs.
3. Compatibility of the project with the Department's policies and programs and the water management goals of the Santa Cruz AMA.

Additional Evaluation Selection Criteria

4. Extent to which the type of project is applicable to other users, other sectors, and other AMAs.
5. Likelihood of community support for the project. Demonstrated sector commitment to participate in the project.
6. Significance of the project's potential economic, environmental, and social impacts.
7. Extent to which the type of project has previously been proven feasible and effective or extent to which implementation of the project will provide information on feasibility and effectiveness if not previously proven.
8. Demonstrated need. Is it likely the project would not be implemented without conservation assistance funding?
9. Ability to monitor demand reductions during and after implementation of the project. Ability to produce documented comparisons of pre- and post-project water savings, scientific data collection and reporting methods, or pre- and post-program surveys to verify project results.
10. Past performance of project proponent with regard to implementing conservation projects. Whether the applicant has experience and past success with similar projects.
11. Effectiveness of proposal. This includes factors such as a clear statement of purpose, goals, methodology, and list of deliverables (data collection, interim and final reports, etc.). Contains background on current and historic water use if applicable. Whether the proposal is innovative and includes sufficiently researched budget information to determine if the requested funding amount is warranted (e.g., salary costs and benefits, retrofit device costs, equipment purchases, and supplies).

Special Preference Points

The GUAC may choose to give special preference points to certain priority projects or may declare a "must fund" project which would receive first consideration for funding. These priorities may change from year to year.

9.6.2.2 Augmentation Assistance Proposal Project Selection

Augmentation projects in the Santa Cruz AMA relate to the use of effluent supplies, the capture of excess surface water flow that is not claimed by right holders and the replenishment of water withdrawn from wells. Each augmentation assistance project grant proposal will be evaluated according to the criteria established by the director in consultation with the GUAC. Evaluation criteria include, but are not limited to:

- Compatibility with current Department programs and policies and consistency with the management goals
- Significance of the project's potential economic, environmental, and social impacts
- Compliance with applicable federal, state, and local regulations
- Technical feasibility and timely realization of alternative renewable water supplies
- Promotion of efficient use of the alternative water supplies
- Likelihood of developing transferable information
- Capabilities of project proponents to successfully implement the project

The Department may coordinate with other agencies and organizations involved in water quality regulation and issues in addition to the Arizona Department of Environmental Quality, through a review and comment process or other means, to ensure that these agencies and organizations are aware of the proposed project and are allowed time to assess any impact the proposed project may have.

9.6.2.3 Monitoring and Assessing Project Selection

Monitoring projects may be developed in cooperation with other government agencies or educational institutions through an IGA or be initiated by the Department and funded based on the availability of equipment required and the expertise to install and monitor such equipment. Project development and selection will be based on the AMA's monitoring and assessment needs in consultation with the GUAC.

9.6.3 Contract Development

Each applicant receiving a favorable determination from the director is required to enter into a contractual agreement with the Department. The contract is prepared by Department staff consistent with the applicant's proposal and describes what is to be accomplished by the applicant for which reimbursement will occur.

9.6.4 Contract Monitoring and Support

Department staff track the progress of each contractor. Intermediate contract deliverables and review provisions are adhered to. Contract products are reviewed for consistency with contract requirements. Department staff issue payments, modify contracts as needed, and provide other legal and administrative support.

9.6.5 Clearinghouse

Each AMA acts as an information repository for all conservation, augmentation, and monitoring information generated from contracts they administer. In addition to any information transfers or product dissemination called for in the contracts, the Department makes all information and products generated by contracts available to anyone.

The Department's Web site also serves as an information clearinghouse and the primary public venue for dissemination of current information on the programs. Information gained through Department sponsored

programs, which are deemed to be regionally, statewide, and/or nationally transferable, will be placed on the Department's Web site and updated regularly. An additional focus will be linking the Department's Web site to other pertinent Web sites. This will assist users in finding water conservation, water supply, and augmentation information from other sources.

A centralized clearinghouse could include a library of conservation and augmentation literature, detailed information on grants and contracts funded, and could provide centralized water conservation outreach activities.

9.7 FUTURE PROGRAM DIRECTION

The future of the Water Management Assistance Program will be influenced and shaped by many considerations. The next ten years will be pivotal years in the Department's effort to maintain the management plan goals of safe-yield and prevention of long-term declines in local water table levels. Key considerations in the structure of the Third Management Plan program will be:

- Program goals and objectives
- Program priorities
- Program process

9.7.1 Third Management Plan Goals and Objectives

The Water Management Assistance Program goals are described in section 9.3. These goals are legislatively derived and articulate what this program is expected to achieve, which is assisting water users in achieving their management plan conservation requirements and in developing replenishment projects. The Water Management Assistance Program goals are consistent with, and should contribute to, the AMA goals of maintaining safe-yield conditions and preventing long-term declines in local water table levels by increasing water use efficiency and studying and providing funding for increasing available water supplies. Program objectives for the Third Management Plan are also described in section 9.3. The Third Management Plan will place a greater emphasis on studying replenishment options and expanding monitoring programs to assist in meeting the unique water management problems of the Santa Cruz AMA. The Third Management Plan objectives are as follows:

- The Department, in consultation with the GUAC, will identify augmentation/replenishment, monitoring and conservation assistance projects of the highest priority order. These projects, through applications or Department initiative, will receive first funding status.
- The Department, in consultation with the GUAC, will list other priority projects and categories for technical or funding assistance. Applications in this priority category will compete with all other applications, however, preference points will be given to the priority applications.
- Provide increased levels of consideration between AMAs regarding AMA funding priorities, multi-AMA projects, information dissemination, etc.
- Increase public awareness of the importance of replenishment, monitoring and water conservation.

9.7.2 Program Priorities

Program priorities have and will continue to be an annual determination by the water using community, the GUAC, and the Department. This annual determination will provide maximum flexibility to accommodate rapidly changing technological, economic, and hydrologic conditions. This approach should consider priorities that emerge during the third management period, as well as the priorities that have been

identified in the various chapters of this plan. The creation of a water district in the Santa Cruz AMA may provide a mechanism to implement the replenishment options identified through the Water Management Assistance Program. The district may have other functions that could benefit from studies and pilot programs initiated by augmentation, monitoring and conservation assistance grants. Although subject to revision during the third management period, initial program priorities include:

Replenishment priorities

- identification of areas where replenishment can occur to best maintain local water table levels and safe-yield conditions
- determination of the potential to capture excess surface water flow to replenish local portions of the Younger Alluvium of the Santa Cruz River
- investigation of the potential of transporting existing water supplies to other areas within the AMA to mitigate drought conditions and secure continuous physical availability of water

Monitoring priorities

- increased number of wells monitored for water levels
- increased number of wells equipped with continuous water level recorders
- construction of stream gage(s)
- funding for replacement/repair of non-functioning/malfunctioning totalizer meters associated with water rights required to report annual water withdrawn from wells to the Department
- potential for voluntary, fixed or mobile monitoring of exempt wells

Municipal priorities

- quantification of landscape water needs under Santa Cruz AMA demographic conditions
- existing residential retrofit and audit programs
- existing and new residential landscape water use conservation education programs
- local or statewide media campaign that will increase awareness of water supply/demand in the AMA
- investigation of potential replenishment project sites

Industrial priorities

- opportunities for direct use of effluent supplies
- further research on application rates for turf and new irrigation technologies

Agricultural priorities

- funding for improved water measurement
- investigation of new drought resistant crop varieties
- research comparing water use associated with new crop varieties compared to commonly used crop varieties
- comparison of costs associated with seed and nutrients, etc. associated with newer low water using or drought tolerate crop varieties compared to commonly used varieties